



The Nature of Water

MARCH 6TH & 7TH, 2023
MLK JR. BUILDING, WEST PAULEY BALLROOM, 2ND FLOOR
2495 BANCROFT WAY, BERKELEY, CA 94720

PROFESSOR HARRY BARKUS GRAY

*Arnold O. Beckman Professor of Chemistry,
California Institute of Technology*



BIOGRAPHY

Harry Gray is the Arnold O. Beckman Professor of Chemistry and the Founding Director of the Beckman Institute at the California Institute of Technology. After graduate work at Northwestern University and postdoctoral research at the University of Copenhagen, he joined the chemistry faculty at Columbia University, where in the early 1960s he developed ligand field theory to interpret the electronic structures of transition metal complexes. After moving to Caltech in 1966, he began research in biological inorganic chemistry; and, in the course of this work, he and coworkers demonstrated that electrons tunnel rapidly over long molecular distances through proteins that function in respiration and photosynthesis. He also began work in inorganic photochemistry that led to the development of light absorbers and robust catalysts for production of solar fuels.

Gray has published over 950 research papers and 18 books. He has received the National Medal of Science (1986); the Linderstrøm-Lang Prize (1992); the Gibbs Medal (1992); the Harvey Prize (2000); the NAS Award in Chemical Sciences (2003); the Benjamin Franklin Medal (2004); the Wolf Prize (2004); the Welch Award (2009); the Richards Medal (2014); the Cotton Medal (2018); the Westheimer Prize (2018); the Feynman Prize (2018); seven national awards from the American Chemical Society, including the Priestley Medal (1991); and 22 honorary doctorates. He is a member of the National Academy of Sciences; a foreign member of the Royal Danish Academy of Sciences and Letters; the Royal Swedish Academy of Sciences; the Royal Society of Great Britain; and the Accademia Nazionale dei Lincei. He has mentored several hundred students and postdocs during his career, including 119 women, and six have been presidents of seven universities.

TALK TITLE

**Dynamics of
unstructured
Parkinsons and
COVID proteins
in water**

QUOTE

"Science involves setting goals, trying hard to reach those goals, and often (almost always!) making mistakes along the way. The great inventor and philanthropist Arnold O. Beckman told me "If you are not making mistakes, you are not doing anything very important." A professor who gives the impression that a student or postdoc should get results that show his or her hypothesis is right is not a good mentor. A good mentor works closely with the members of his or her team, allowing them the freedom to explore, not telling them exactly what to do every single day, and making decisions together on new directions to take."

Prof. Harry Gray

SPECIAL THANKS TO



MOLECULAR FRONTIERS

